Division of Information Technology Services
Department of Administrative Services
State of Utah

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Tiered Support Model Implementation Status Report

Introduction

The Tiered Support Model is an industry standard model for building best of class support organizations. This model has been successfully implemented countless times worldwide in private, public and educational organizations. Most notable are AT&T, Qwest, Intel, IBM, University of Washington, MIT and Toyota. Each of these organizations has seen an overall improvement in customer satisfaction and productivity after moving to a TSM based support organization.

The TSM designates lines of responsibility and accountability along functional lines. These functions are placed into one of multiple tiers, placing the customer service functions closer to the customer and the technical functions closer to the enterprise. By aligning the functions in the correct tier, customers can expect consistent and timely responses to there issues rather then an ad hoc approach to customer service.

For ITS a five (5) tiered model was chosen based on the size, complexity, and functions of the support organization. The breakdown of the tiers and their associate functions is as follows:

> ***Customer Service (Tier 1)*** - This is the first point of contact with the customer. The Customer service team will be responsible for the input of trouble tickets and for performing triage on the issue. The team members will have at their disposal a resolution knowledgebase that will be used to facilitate troubleshooting and identifying possible resolutions for the issue at first contact. If the Customer Service representative is unable to resolve the customers' issue within an appropriate amount of time (based on the criticality of the issue and call volume), the representative will assign the issue to a Technical Support Engineer, or tier 2,representative.
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> ***Technical Support Engineering / Network Operations Center (NOC) (Tier 2)*** - This tier is where the ownership of escalated issue resides. The Technical Support Engineers role is built around communications and management of the issue. They also provide support to the Customer Service representatives by assisting them in the attempt to resolve a customer issue at first contact. The Technical Support Engineer is responsible for driving escalated issues up and down the TSM, in other words, they are the point of contact for customers on escalated issues and will manage the communications flow and the updating the issue knowledgebase with resolutions for issues as they are identified which will allow for repetitive issue to be identified and resolved in a timely manner. The Network Operations Center is responsible for the monitoring of the health of the enterprise and alerting the Operations team to service interruptions and outages. They also manage the communications with the outside vendors and suppliers of technology in the event of an outage.
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> ***Systems Administration (Tier 3)*** - The Systems Administration team is responsible for the uptime and availability of the enterprise. This team is comprised of specialists in Operating Systems, Hardware and Networking. They will resolve issues that have been identified by the lower tiers as systemic problems and will provide the Technical Support Engineers with root cause analysis for inclusion in the knowledgebase. They

are also charged with the installation and configuration of new hardware and Operating Systems required for new products and/or services.

Product Operations (Tier 4) - The Product Operations team's responsibilities are based around the various applications and services that ITS offers. They are the Subject Matter Experts (SME) for each application or technology that ITS deploys into production. They also mentor the Systems Administration team to augment the skill sets in that team as well as provide Engineering with expertise when investigating the feasibility of new offerings. Product Operations is responsible for identifying application (read: code) related issues and escalating them to Engineering.

Engineering (Tier 5) - Engineering is a broad team made up of the internal ITS engineering teams, as well as the outside agency Engineering teams. They are the applications and systems engineers that create the applications and/or services that ITS hosts. Engineering will work closely with Product Operations to facilitate a smooth and consistent QA and acceptance-testing program for all applications, services, patches and updates that are placed into production.

Implementation Status

- The TSM was released internaly to ITS on 6/17/02.
- Since the release there has been a 300% increase in the number of tickets that have been entered into Remedy due to the requirement that every issue is reported through Customer Support.
- There has been a measurable decrease in the MTTR (Mean Time To Resolution) of issues when compared against the previous month (baseline).
- ITS staff are continuing to monitor and identify gaps in the process, and are developing recovery plans for each gap.
- ITS is also working on a procedure for how we accept, test and promote changes to the production environment that will be published once all of the stake holders have been given an opportunity to provide input into the process.
- The Operations Acceptance Testing, or OAT process is undergoing a revision to provide for a "Fast Track" process for changes to production code and/or urgent/critical changes.